

METHOD AND SYSTEM FOR RECORDING AND REPLAYING THE EXECUTION OF DISTRIBUTED JAVA PROGRAMS

ABSTRACT OF THE DISCLOSURE

A method for recording and replaying execution of distributed programs on a computer system in a distributed environment, includes identifying an execution order of critical events of a program, generating groups of critical events of the program, wherein for each group, critical events belonging to the group belong to a common execution thread, and generating for each execution thread a logical thread schedule that identifies a sequence of the groups so as to allow deterministically replaying a non-deterministic arrival of stream socket connection requests, a non-deterministic number of bytes received during message reads, and a non-deterministic binding of stream sockets to local ports.